

REMARKS/ARGUMENTS

The present communication is filed in response to the Official Action mailed September 5, 2006, finally rejecting all the claims presently pending in the application ("Final Rejection"). Of the pending claims, claims 1, 16 and 21 are independent claims. All the other claims remaining in the application, namely claims 2-15, 17-20, 22-25 and 27-32, depend from one of the independent claims.

A one-month extension of the time to respond, up to and including January 5, 2007, is filed concurrently herewith.

Claim Amendments

Claim 1 has been amended to now recite "a substrate." It has also been amended to now recite "said first path being disposed on said substrate." Applicants respectfully submit that these amendments are meant to clarify the claimed subject matter.

Claim 16 has been amended to now recite "a circuit path including a first path disposed on a substrate and formed by a nonconductive composition and a second path disposed on said first path and formed by a substantially conductive composition, said second path having a width dimension that is less than a width dimension of the first path." Applicants respectfully submit that these amendments are meant to clarify the claimed subject matter.

Claim 21 has been amended to now recite "an object forming a substrate." This claim has also been amended to now recite "a circuit path disposed on the substrate formed by said object." Further, the claim now recites "said circuit path including a first layer . . . disposed on the substrate." In addition, claim 21 has been amended to now recite "said first layer having a width dimension that is greater than a width of said second

layer." This claim has also been recast to include the subject matter previously recited in claim 26.

In that regard, claim 26 has been canceled.

Support for the foregoing amendments may be found by reference to, for example, paragraphs [0025], [0042], [0060] and FIG. 3A of the specification. Applicants therefore respectfully submit that the foregoing amendments do not add new matter to the application.

Claim Rejections

Claims 1, 2, 16, 17, 20 and 21 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 5,626,948 to Ferber et al. ("*Ferber*"). Claims 3-8, 10-14, 18, 19 and 23-32 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Ferber*. Further, claim 22 appears to have been rejected under 35 U.S.C. §103(a) as being obvious over *Ferber* in view of U.S. Patent 4,363,081 to Wilbur ("*Wilbur*"), although the Examiner indicated that this claim was rejected as being anticipated under §102(b).

More specifically, in relevant part, in rejecting claims 1, 16 and 21, the Examiner asserts that *Ferber* "discloses a product (figure 6) comprising: a circuit path including a first path formed by a substantially non-conductive composition (18) having a first color (col. 2, lines 14-28), said second path being disposed on said first path so as to include at least one open circuit area along said second path." (Final Rejection 2.) Applicants respectfully submit that the claims are distinguishable over *Ferber*.

Ferber discloses a "multi-layer conductive composition 10 [as] depicted in an isolated cross-sectional view in FIG. 1 as comprising first and second compositions layers arranged on a substrate." (*Ferber*, col. 5, ll.46-49). The substrate comprises the surface of any article or object which may be used for

consumer or industrial purposes. (*Id.*, 11.51-57.) Thus, the element 18 which the Examiner points to as comprising the non-conductive composition comprises the substrate. This is important for two reasons.

First, in *Ferber*, the first or bottom layers 12, 14 are disclosed as comprising a conductive path. (*Id.*, col. 7, 11.6 - 16.) These bottom layers 12, 14 are also disclosed as being disposed on the substrate 18. (*Id.*, col. 5, 11.51-57, see FIG. 1.) Further, in *Ferber*, the second or top layer 16 is disclosed as comprising a non-conductive composition disposed on the bottom layer. Thus, in *Ferber*, the multilayer composition comprises a substrate onto which is arranged a conductive layer. A non-conductive layer is then disposed on the conductive layer.

Second, the conductivity of the first or bottom portions 12, 14 are disclosed as being greater than the conductivity of the top or second composition layer 16. Moreover, even where the conductivity of the second or top layer 16 is selected so that it permits current flow, *Ferber* discloses that "even in this alternate embodiment, the conductivity of the bottom composition layer would be greater than the conductivity of the top composition layer." (*Id.*, col. 9, 11.2-4.) Thus, in *Ferber*, the multilayer composition generally comprises a non-conductive substrate unto which is disposed a conductive composition or first or bottom layer (12, 14). A first or top layer (16) is then disposed on the bottom layer. This first or top layer comprises a composition that has a conductivity that is less than the bottom layer.

In contrast, claim 1 is directed to a product in which the composition layer are arranged in an opposite manner. In particular, "a first path [is] formed by a substantially non-conductive composition." A "second path formed by a substantially conductive composition" is "disposed on said first path." Thus, looking from top to bottom, claim 1 is directed to

the following structure: conductive first path or layer; non-conductive second path or layer; substrate.

In *Ferber*, the top layer comprises a non-conductive composition. It is disposed on a bottom layer which comprises a conductive composition. The bottom layer is then disposed on a non-conductive substrate. Accordingly, looking from top to bottom *Ferber* discloses: non-conductive top layer; conductive bottom layer; substrate. The product of claim 1 is arranged opposite to *Ferber*. In particular, claim 1 comprises a first or top layer formed by a substantially non-conductive composition. It is disposed on a bottom or second layer formed by a substantially conductive composition. This second layer is itself disposed on a generally non-conductive substrate. Thus, for at least this reason the *Ferber* reference does not anticipate claim 1.

Claim 16 is also not anticipated by *Ferber* for at least the foregoing reasons. In particular, claim 16 recites "a circuit path including a first path disposed on a substrate and formed by a non conductive composition and a second path disposed on said first path and formed by a substantially conductive composition."

Claim 21 is also not anticipated by *Ferber* as it recites "a circuit path disposed on the substrate formed by said object, said circuit path including a first layer formed by a non-conductive composition of a first color and disposed on the substrate." Further, as amended, claim 21 now recites "wherein said second layer is disposed on top of said first layer so that said first layer masks said one or more gaps disposed along said second layer."

In addition, applicants respectfully submit that the amendments to the claims do not raise new issues that require further search. In particular, in claim 21 as originally filed the conductive and non-conductive layers were arranged on an

object, which formed the substrate. Thus, the amendments to claims 1 and 16 to comprise a substrate had previously being considered by the Examiner in claim 21.

Applicants respectfully submit that the arrangement of the conductive and non-conductive layers onto the substrate as claimed in claims 1, 16 and 21 is opposite to the arrangement disclosed in the *Ferber* reference. Applicants, further respectfully submit that the other references of record do not make up for this deficiency in *Ferber*. Thus, the references cannot be combined in a manner so as to render, claims 1, 16 and 21 obvious.

Furthermore, as all the other claims pending in the application depend from either claim 1, 16 or 21, applicants further respectfully submit that these other claims are also not anticipated or rendered obvious by either *Ferber*, or the combination of *Ferber* with any of the other references of record. Thus, for at least this reason these claims also allowable.

In addition, the Examiner also rejected claims 6 and 7 on the grounds that the claimed subject matter was merely a design choice. Applicants respectfully submit however, that none of the references of record disclose the particular features of claim 6 and 7. Thus, for at least this additional reason these claims are further not anticipated by *Ferber* or rendered obvious by the combination of *Ferber* with any of the other references of record.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he telephone applicants'

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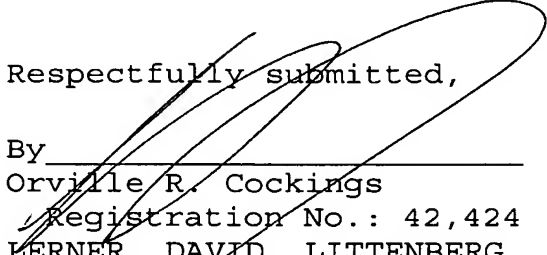
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attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: January 5, 2007

Respectfully submitted,

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